Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.   (Currently Amended)   A method for detecting drive anomalies, comprising:

(a)   verifying data is written to a media upon an occurrence of a write operation, said write operation including a data persistency verification;

(b)   performing a data block integrity test by <u>only</u> reading ~~data~~ from a single drive during an occurrence of a read operation; and

(c)   performing a location check by <u>only</u> reading ~~data~~ from said single drive during said occurrence of said read operation<u>, said single drive including interleaved metadata with data</u>, whereby retrieval of correct data from a correct physical location is ensured.

2.   (Original) The method as claimed in claim 1, wherein said data persistency verification determines whether data is written to said media.

3.   (Original) The method as claimed in claim 1, wherein a random read performance is increased by removing the requirement of reading a form of metadata from a second drive.

4.   (Original) The method as claimed in claim 1, wherein said data block integrity test ensures that data has been retrieved properly.

5.   (Previously Presented)   The method as claimed in claim 1, wherein said location check ensures that data has been retrieved from the correct physical location.

6.   (Currently Amended) A method for detecting drive anomalies, comprising:

(a)   verifying data is written to a media upon an occurrence of a write operation, said write operation including a data persistency verification;

(b)   performing a data block integrity test by only reading ~~data~~ from a single drive during an occurrence of a read operation; said data block integrity test employing a parity error detection algorithm; and

(c)   performing a location check by only reading ~~data~~ from said single drive during said occurrence of said read operation, said location check including the comparison of a location tag with an expected value, said single drive including interleaved metadata with data, whereby retrieval of correct data from a correct physical location is ensured.

7.   (Original) The method as claimed in claim 6, wherein said data persistency verification determines whether data is written to said media.

8.   (Original) The method as claimed in claim 6, wherein a random read performance is increased by removing the requirement of reading a form of metadata from a second drive.

9.   (Original) The method as claimed in claim 6, wherein said data block integrity test ensures that data has been retrieved properly.

10.   (Previously Presented) The method as claimed in claim 6, wherein said location check ensures that data has been retrieved from the correct physical location.

11.   (Original) The method as claimed in claim 6, wherein said parity error detection algorithm is a cyclic redundancy check.

12.   (Currently Amended) A method of detecting drive anomalies during a

read operation, comprising:

(a)   reading only ~~data~~ from a single drive into a cache memory, said single drive including interleaved metadata with data,;

(b)   generating a first parity error information set for a ~~data~~ read from said single drive;

(c)   comparing a second parity error information set with said first parity error information set; and

(d)   comparing a location tag with an expected value, wherein a data integrity test and location check is performed by only reading ~~data~~ from said single drive.

13.   (Original) The method as claimed in claim 12, wherein data has been retrieved correctly from said single drive when said first parity error information set matches said second parity information set.

14.   (Original) The method as claimed in claim 13, wherein said second parity error information set is stored as metadata.

15.   (Original) The method as claimed in claim 13, wherein said first parity error information set and said second parity error information set are cyclic redundancy check information.

16.   (Original) The method as claimed in claim 12, wherein data has been retrieved from a correct physical location when said location tag matches said expected value.

17.   (Original) The method as claimed in claim 16, wherein said location tag provides an indication of an address range associated with a data block.

18.   (Original) The method as claimed in claim 17, wherein a range of said address range is flexible.